

WHAT IS CLAIMED IS:

1. A method of making a filter, comprising:
providing a partially assembled filter assembly having a frame and a filter medium, the filter medium having side edges inserted into a channel of the frame, the frame having pre-applied bonding material within the channel facing the side edges of the filter medium;
mechanically transferring the filter assembly into a heating press having at least one heated die;
engaging the at least one heated die with the frame of the filter assembly under pressure for a first time period for heating the frame to melt the bonding material;
mechanically transferring the filter assembly with the melted bonding material to a cold sealing press having at least one cooling die;
engaging the at least one cooling die with the frame of the filter assembly under pressure for a second time period for cooling the bonding material to bond the edges of the filter medium with the frame to form a sealed filter;
mechanically transferring the sealed filter to an ejection station for removal thereof.
2. A method as in claim 1, wherein the bonding material is a hot-melt adhesive.
3. A method as in claim 2, wherein the first time period is between 0.5 and 5 seconds.
4. A method as in claim 3, wherein the first time period is about 3 seconds.
5. A method as in claim 2, wherein the heating press has upper and lower heating dies movable to engage the frame of the filter assembly under a first pre-selected pressure.
6. A method as in claim 5, wherein the first pre-selected pressure is up to 125 psig.

7. A method as in claim 2, wherein the cold sealing press has upper and lower cooling dies movable for engaging the frame of the filter assembly under a second pre-selected pressure.

8. A method as in claim 7, wherein the second time period is between 1 and 7 seconds.

9. A method as in claim 2, wherein the hot-melt adhesive is an ethylene vinyl acetate based compound.

10. A method as in claim 1, wherein the steps of mechanically transferring employs a transport plate movable sequentially to the heating press, cold sealing press, and ejection station, the transfer plate having a support structure for receiving and supporting the filter assembly.

11. A method as in claim 10, wherein the support structure includes an opening in the transport plate sized for receiving the filter assembly, and holding tabs inwardly protruding from edges of the opening for holding the frame of the filter assembly.